What is claimed is:

1. A signal synthesizing apparatus comprising:

an optical pickup having a plurality of light receiving planes for receiving a light beam returning from an optical disc when a reading beam of light is radiated to the optical disc, and for producing a plurality of signals;

adjusting means for adjusting signal levels of the plurality of signals such that each of the signal levels of the plurality of signals becomes equal to a reference level determined from at least one of the signal levels of the plurality of signals; and

synthesizing means for synthesizing the plurality of signals after the signal levels of the plurality of signals are adjusted by the adjusting means to obtain a synthesized signal.

2. The signal synthesizing apparatus according to claim 1, wherein the reference level is a signal level of one of the plurality of signals, and the adjusting means adjusts signal levels of others of the plurality of signals such that each of the signal levels of the others of the plurality of signals becomes equal to the signal level of the one of the plurality of signals.

3. The signal synthesizing apparatus according to claim 2, wherein the adjusting means includes:

a relay circuit for producing a reference level signal representing the signal level of the one of the plurality of signals, and directly transferring the one of the plurality of

signals to the synthesizing means; and

a plurality of amplifying relay circuits for producing subordinate level signals representing the signal levels of the others of the plurality of signals respectively, adjusting the signal levels of the others of the plurality of signals such that each of the subordinate level signals becomes equal to the reference level signal, and supplying the others of the plurality of signals having the adjusted signal levels to the synthesizing means.

4. The signal synthesizing apparatus according to claim 3, wherein the relay circuit includes a signal line for transferring the one of the plurality of signals and a first peak detection circuit for utilizing a peak level of the one of the plurality of signals on the signal line as the reference level signal, and the plurality of amplifying relay circuits include a plurality of variable gain amplifiers for amplifying the others of the plurality of signals with gains determined in accordance with respective control signals, a plurality of second peak detection circuits for utilizing peak levels of output signals of the plurality of variable gain amplifiers as the subordinate level signals respectively, and a plurality of difference signal producing circuits for creating difference signals representing level differences between the reference level signal and the subordinate level signals respectively and utilizing the difference signals as the respective control signals.

5. The signal synthesizing apparatus according to claim

4, wherein each of the first and second peak detection circuits includes a peak hold circuit.

6. The signal synthesizing apparatus according to claim 5, wherein each of the first and second peak detection circuits has a high pass filter upstream of the peak hold circuit.

7. The signal synthesizing apparatus according to claim 4, wherein each of the first and second peak detection circuits has an upper peak hold circuit for retaining an upper peak of the respective signal, a lower peak hold circuit for retaining a lower peak of the respective signal, and a subtraction circuit for obtaining a level difference between the upper and lower peaks and utilizing the level difference as the peak level.

8. The signal synthesizing apparatus according to claim 7, wherein each of the first and second peak detection circuits has a high pass filter upstream of the peak hold circuit.

9. The signal synthesizing apparatus according to claim 1, wherein the reference level is an average of signal levels of at least two of the plurality of signals.

10. A signal synthesizing method comprising the steps of:

A) receiving a light beam returning from an optical disc upon radiating a reading beam of light to the optical disc;

B) producing a plurality of signals in accordance with optical intensities of the received light beam;

C) adjusting signal levels of the plurality of signals such that each of the signal levels of the plurality of signals becomes equal to a reference level determined from at least one

of the signal levels of the plurality of signals; and

D) synthesizing the plurality of signals after the signal levels are adjusted in Step C to obtain a synthesized signal.

11. The signal synthesizing method according to claim 10, wherein the reference level is a signal level of one of the plurality of signals, and step C adjusts signal levels of others of the plurality of signals such that each of the signal levels of the others of the plurality of signals becomes equal to the signal level of the one of the plurality of signals.

12. The signal synthesizing method according to claim 11, wherein step C includes the substep of using a peak level of the one of the plurality of signals as the reference level signal.

13. The signal synthesizing method according to claim 12 further including the step of passing only a high frequency portion of each of the plurality of signals before step C.

14. The signal synthesizing method according to claim 12 further including the steps of:

detecting an upper peak of the one of the plurality of signals;

detecting a lower peak of the one of the plurality of signals;

obtaining a level difference between the upper and lower peaks; and

using the level difference as the peak level.

15. The signal synthesizing method according to claim

14 further including the step of passing only a high frequency portion of the signals before step C.

16. The signal synthesizing method according to claim 10, wherein the reference level is an average of signal levels of at least two of the plurality of signals.

17. An apparatus comprising:

a plurality of detectors for receiving a light beam returning from an optical disc when a reading beam of light is radiated to the optical disc, and for producing a plurality of signals; and

a level adjusting circuit for adjusting signal levels of the plurality of signals such that each of the signal levels of the plurality of signals becomes equal to a reference level determined from at least one of the signal levels of the plurality of signals.

18. The apparatus according to claim 17, wherein the reference level is a signal level of one of the plurality of signals, and the level adjusting circuit adjusts signal levels of others of the plurality of signals such that each of the signal levels of the others of the plurality of signals becomes equal to the signal level of the one of the plurality of signals.

19. The apparatus according to claim 18, wherein the level adjusting circuit includes:

a relay circuit for producing a reference level signal representing the signal level of the one of the plurality of signals; and

an amplifying relay circuit for producing subordinate

level signals representing the signal levels of the others of the plurality of signals respectively, and adjusting the signal levels of the others of the plurality of signals such that each of the subordinate level signals becomes equal to the reference level signal.

20. The apparatus according to claim 19, wherein the relay circuit includes a first peak detection circuit for using a peak level of the one of the plurality of signals as the reference level signal, and the amplifying relay circuit includes a plurality of variable gain amplifiers for amplifying the others of the plurality of signals with gains determined in accordance with respective control signals, a plurality of second peak detection circuits for using peak levels of output signals of the plurality of variable gain amplifiers as the subordinate level signals respectively, and a plurality of difference signal producing circuits for creating difference signals representing level differences between the reference level signal and the subordinate level signals respectively and using the difference signals as the respective control signals

21. The apparatus according to claim 20, wherein each of the first and second peak detection circuits includes a peak hold circuit.

22. The apparatus according to claim 21, wherein each of the first and second peak detection circuits has a high pass filter upstream of the peak hold circuit.

23. The apparatus according to claim 20, wherein each of the first and second peak detection circuits has an upper

peak hold circuit for retaining an upper peak of the respective signal, a lower peak hold circuit for retaining a lower peak of the respective signal, and a subtraction circuit for obtaining a level difference between the upper and lower peaks and using the level difference as the peak level.

24. The apparatus according to claim 23, wherein each of the first and second peak detection circuits has a high pass filter upstream of the peak hold circuit.

25. The apparatus according to claim 17, wherein the reference level is an average of signal levels of at least two of the plurality of signals.